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PHYSICAL CULTURE

IN

OUR SCHOOLS.

A human being, after taking the first step into this world, is the most helpless creature in the universe, but able to reach the highest development by proper training. Therefore, it is our duty and the problem of education to develop these germs latent in mankind to such a high perfection as they would try to obtain for themselves if they were of age. A well considered guidance and judicious instruction should ascertain the moral conditions of the pupils to render them fit for the personal and social duties of life, to train them also to an independent selection and firmness of action. To solve this educational problem, it is of the greatest importance that the human body, as a bearer of the mind, be well taken care of and perfectly developed. A system which develops only the mental and not also the physical powers of the child, reveals a lamentable vacuum in the moral point of view. It is an acknowledged fact that an early and quick development of the memory and the powers of imagination at the expense of physical growth often leads to an unnatural development of the sensual instincts and to decline in the bloom of life. Weakness of the body carries along with it weakness of the will, timidity, irresolution, and inclination to give up a task that meets with no immediate satisfactory result; and the person devoid of an independent will is like a reed bent by the slightest breeze. A being without power of will, tossed about by

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the waves of destiny, has not the heart, the courage or the strength to stand face to face with danger and corruption. One-sided education, want of strengthening physical exercises in the open air, check the development of the senses, and through that the development of reason and mind. What we have obtained in a brief time of mental over-exertion vanishes as soon again. The disadvantageous influence of such an education can be traced in the family and in the state, in the social and political sense of the word.

The efforts of instructors to develop the mental powers of children in a natural and judicious way at the *proper* time are to be commended, but only if they do not neglect to bring about unison between body and mind. The power of reason alone is not sufficient in time of distress; mental superiority alone does not secure our happiness; we need also health, strength, physical abilities and power of will. True human happiness and true human perfection can only be secured if we are in possession of all our powers; and there can be no doubt, that this educational problem of the school can only be solved through judicious bodily exercises calculated to promote that beautiful harmony of body and mind which we find so prominently developed in the life of the ancient Greeks.

The advanced ideas in modern teaching have added physical exercise as a department of equal importance to the other branches of instruction. Bodily exercises are now practised in European schools with the object of obtaining health, beauty and instant and complete control over the volunteer muscles. The physical problem of the modern school, therefore, presents a sanitarian, an æsthetical and a psychological aspect. The sanitarian purpose of physical education has of late received a great deal of attention in this country from men of high standing in educational matters, and we meet frequently with able discussions on this subject in periodicals devoted to science and education. For this reason we refrain from enumerating at length the arguments in favor of the wholesome influence of physical exercise on the different organs and their functions of the human body. In regard to the æsthetical aspect, let it be clearly understood however that bodily exercise for school practice is not a cure for certain deformities. Under no circumstances can it be a means to such an end, since the

pupils of our schools are supposed to be normally formed. Should this not be the case, it is necessary to obtain the advice of the medical profession to ascertain if such a child should be allowed to take part in bodily exercises. And, if so, every exercise must be carefully adapted to each particular case, a task which is plainly not within the province of the school. Such cases would have to be remedied by the so-called "Swedish movement cure" which has its distinctive features in its adaptability to diseased conditions, and there can be no doubt of its usefulness. As a means of cure it is still in use, and would be still more used were it not in the hands of those who often make for it altogether unreasonable claims. The physical training of the school must have in view the harmonious development of the physical powers, or still more distinctly stated, strive to obtain for all limbs a free use of their strength: in other words, an instant and complete control over all voluntary muscles, for, without fostering care, they, like our mental capacities, are but a poor possession. Each limb should be trained with reference to its natural uses, in order that our whole body, thus uniformly cultivated, may obey the behests of the mind. Prof. Buchanan exclaims in his "Moral Education": "Why should we have mental culture at the expense of the body in literary schools, and bodily culture only in the schools of pugilism? and we beg to add: in excessive rowing,* pedestrianism and acrobatism in the gymnasium and circus? which are all more or less injurious to the body not speaking of the bad influences in the moral and physiological sense. Why should not every school give vigilant attention to the robust attainments of the gymnasium and play-ground, which furnish the physical basis of a career?"

Closely related to the sanitarian importance of physical exercises is the æsthetical. A hearty, strong and active person will always create a pleasant impression. And we do not hesitate to say, that physical exercises, in the broadest sense, are the æsthetics applicable to the human body. However, it is impossible up to the present day, to speak of an æsthetical influence of the modern physical exercises on any civilized nation, the Germans

*The moral and physiological degradation resulting from excessive cultivation of the muscles is graphically and forcibly illustrated by Wilkie Collins in his novel: "Man and Wife."

not excepted. The time since gymnastics were introduced in the schools of Europe, is too short to show a visible gain in this direction. So far, there is in history but a single instance of a nation that can be cited as a proof of the æsthetic value of bodily exercises. Grecian gymnastics aimed not alone at rendering the body strong and agile, but far more to produce a noble carriage, graceful manners and a dignified appearance. Every Greek fashioned his body into a living divine statue. The great German philosopher Hegel says in his "Philosophy of History": "The Greeks fashioned themselves first into beautiful figures before they could represent such objectively in marble and pictures"; and a prominent Scotch author said: "By their system of physical culture the Greeks realized that beautiful symmetry of shape which for us exists only in the ideal, or in the forms of divinity which they sculptured from figures of such perfect proportions."

Even admitting that the first aim of physical education is the development of the body, it must be conceded that at the same time we obtain or promote the culture of the mind. It is impossible that a physical movement can be executed without a mental activity. In most cases this action and the final gain, obtained by physical activity, cannot be noticed immediately, but will surely follow in due time, as a consequence of the bodily progress.

If among the so-called senses the organ of sight is the most important, and if all perceptions received through this organ are the clearest and most distinct, then the exercises illustrated in gymnastic instruction must be clear and determinate, because the instruction in bodily exercises has its basis mainly in object-teaching. If the instructor orders the pupils to execute an exercise, they must have seen the exercise before they can execute it, and no explanations can replace such an exhibition of an exercise by the teacher. It is also true, that before the command of a number of exercises in succession (or compound-exercises) can be executed by the pupil, he must have seen, comprehended and carried out, such exercises separately beforehand. These indispensable illustrations of the manner of doing and imitating bring into play the perceptive faculties of the pupils, whereby their ability to reproduce what they have seen, must necessarily be greatly promoted. The prac-

tice of bodily exercises in classes is, therefore, a powerful stimulus to induce careless and indifferent pupils to join in executing the exercises with the same vigor and strength as their more active comrades, because they have constantly a good example before them. The power of comprehension in different individuals shows itself in this branch of teaching very distinctly. Experience teaches that in almost every case, bright children comprehend and advance in physical exercises very quickly, while on the other hand children of slow perception must use more industry and pay stricter attention to keep up with their more gifted fellows. The instructor, therefore, detects the dull or careless pupil in this branch of instruction quicker than in any other school work. A pupil who is not bright will almost instantly show his mental poverty, especially in compound-exercises. That the execution of compound-exercises requires as much activity of the central organ of the nervous system, of the brain and spinal nerves as of the muscles, is easy to demonstrate. Every action of our body as a motive apparatus depends not less but more upon the proper co-operation of the muscles than upon the force of their contraction. In order to execute a compound motion, like a leap, the muscles must begin to work in the proper order, and the energy of each one of them must increase, halt, and diminish according to a certain law, so that the result shall be the proper position of the limbs, and the proper velocity of the centre of gravity in the proper direction. But when it is established that the central nervous system is not only amenable to the law of exercise, but is the chief object of its influence, we then begin to see how the highest mental effects are involved in the question.

The indirect psychological influence of proper bodily exercises is so evident, that it will be sufficient to enumerate only a few facts in connection therewith. Self-confidence increases in the same degree as the consciousness of strength and power increases by bodily exercise. And it is a matter of fact, that we notice in the field of education a phenomenon, which appears in the life of nations on a large scale. Nations which live in a mountainous country and have a daily struggle for their existence, or rely on the chase as a livelihood, in short, all tribes that have constant occasion to try

their physical strength, are noted for their activity, independence and courage. They distinguish themselves physically in the most remarkable manner from those who lead a comfortable life without contest and trouble.

The mind is a unity, and the perfection of accomplishment which is gained in one branch of study, must have its effect upon the mind in general. Therefore, every development of courage or energy, every guidance to correct contemplation, to quick and resolute thinking, must cultivate all the powers of the mind; and the training obtained through physical exercises, will quickly manifest itself in all other branches of study. According to Dr. Norris' report in the British Association it is an established fact that children who divide their time equally between study and work make better progress in each than those who give all their time to study or all their time to work. It must be so, for the human constitution demands variety or change in every thing, and prolonged exertion without change is destructive.

In conclusion a few words regarding the refreshing effect of bodily exercise on the mind. By a constant inactivity of the motor-nerves, the consumed power of the nerve-activity apparently accumulates in the sensual-nerves, causing a nervous congestion in the sensual parts of the body, which frequently develops a sickly condition. When this condition reaches its height it is generally known under the name of hypochondria or hysteria. The best remedy in all such cases is vigorous excitation of the motor-nerves through judicious activity of the muscles. According to the best physiological knowledge, in most people of our times the two systems, the sensual and motor-nerves, are not evenly developed. The motor-nerves receiving a too small amount of energetic activity and the sensual-nerves, especially the nerves of touch, being principally called into action, causes the two systems not to be evenly balanced, and this is undoubtedly the primal cause of the "nervousness" of our age. The best prophylaxis is here also proper activity and development of the motor-nerves for the purpose of attaining a sound counterbalance, which will prevent or remove this evil with certainty.

Bodily exercise promotes the cultivation of the blood, and increases exchange of matter. The consumption of the abundance of power or strength through activity drives away all depression, ill humor and idle thoughts. If we compare the influence that proper physical exercises has upon the education and cultivation of the human race, with that of the other school-disciplines, it must become clear and indisputable that this branch of education is fully as important as all other disciplines. Hence, by not introducing bodily exercise into our schools, we commit an important pedagogical error. The mutual operation, in which, as we know, body and mind co-labor, is a self-evident proof of this assertion. And let us never forget that if we develop one part of the human being at the expense of the other, it cannot be done with impunity. At the present time almost all schools in our country have paid exclusive attention to the improvement of the mind, and nothing has been done to develop or improve the body. But if all the good signs of recent times do not prove false, we may almost with certainty say that a new era is dawning in this direction. If the schools endeavor to comply with this demand for the introduction of this important branch of education, they will meet all the requirements of a thorough cultivation, and bring into existence what by right should not have been so long neglected.

PHYSICAL EXERCISES FOR THE GIRLS.

It can scarcely be doubted that the beneficial results of physical exercise to the female sex are easily susceptible of proof, unless indeed we are inclined to regard girls and young women as supernatural beings without flesh and blood. And it seems so much the more necessary to discuss such matters when we reflect how many parents, teachers, and friends of education, otherwise free from prejudice, express themselves more or less contemptuously in regard to the physical training of girls.—At the outset the question occurs whether the modern system of physical exercise is of importance in relation to the female sex; is it a necessity? This question deserves an affirmative answer if its solution is in any way dependent on the idea of a necessary element in education, that is in so far as it contemplates a harmonious development of the entire being, or in other words: the development of body, soul, heart and character. From this point of view bodily training would necessarily be regarded as a necessity of the times, whilst often enough it has been recognized by thoughtful physicians and instructors as almost indispensable in the present system of culture.

As early as the year 1780 the celebrated physician, Dr. J. P. Frank, in his "System of a complete medical police," complains:

"A young woman brought up according to what is called good taste is actually a miserable, pitiable creature, in comparison with such a one as Nature develops without us. At the most trifling continuous movement she experiences all the sensations of a diseased being, palpitation of the heart, short breath, trembling and lassitude. Continuous sitting and uninterrupted inactivity of her muscles of motion prevent the circulation of the blood, except in those vessels to which alone the power of a weak heart can bring it; but there is hardly a suspicion of internal movement of the

blood in such parts, to which that strength alone does not suffice, and of which the smallest veins are filled only through the united powers of the circulation. The palid complexion and the etherealized existence are the results of a half suffocated circulation. The influence of such a training on general health is at a casual glance of the most pernicious character."

Herbert Spencer, in speaking of the education of boys and girls, says in the chapter on physical education: "Then girls should be allowed to run wild—to become as rude as boys, and grow up into romps and hoydens," exclaims some defender of the proprieties. This we presume is the ever present dread of schoolmistress. It appears, on inquiry, that at 'establishments for young ladies' noisy play like that indulged in by boys, is a punishable offence; and it is to be inferred that this noisy play is forbidden, lest unlady-like habits should be formed. The fear is quite groundless, however. For the sportive activity allowed to boys does not prevent them from growing up into rowdies. Rough as may have been their accustomed playground frolics, youths who have left school do not indulge in leap-frog in the street, or marbles in the the drawing-room. Abandoning their jackets, they abandon at the same time boyish games, and display an anxiety—often a ludicrous anxiety—to avoid whatever is not manly. If now, on arriving at the due age, this feeling of masculine dignity puts so efficient a restraint on the romping sports of boyhood, will not the feeling of feminine modesty gradually strengthening as maturity is approached, put an efficient restraint on the like sports of girlhood? Have not women even a greater regard for appearances than men? and will there not consequently arise in them even a stronger check to whatever is rough or boisterous? How absurd is the supposition that the womanly instincts would not assert themselves but for the rigorous discipline of schoolmistress?"

From the standpoint of medical training the bringing up of female youth in this country is entirely misconceived, and in many respects even a daily attempt is made on the health and normal development of youth. This heavy charge is based on the fact that among 100 children afflicted and deformed, according to general experience are only 8 or 10 boys to 90 or 92 girls; that of 80

girls sitting together in one school-room, scarcely half are of faultless growth; that finally in the last decade of years the number of deformities among the female sex has evidently and to an alarming degree increased in all cities. This sad experience gives us a right to condemn the mode of female education now prevailing in cities, and if not the right, it at least makes it our duty to search for the imperfections of such training and to offer a remedy for it. I cannot refrain from here citing a portion of a lecture delivered in Breslau about two years ago by Prof. Kopsch, on "The Modern Gymnastic Exercise and its importance in Female Education." Among other things he says:

"Let us glance at the education of a young lady, of good family, as we are accustomed to say. We will be silent as to the evil influences which badly ventilated and dark nurseries in the heart of our cities carry with them, although they decidedly cause a deficient remedy.

"But let us consider a young girl from 8 to 10 years of age. The child of course wears a number of petticoats, which together make up a considerable weight. This weight rests on the hip-bones of the child and loads it down disproportionately. The child consequently endeavors instinctively to relieve first one hip and then the other from the burdensome pressure; that is, it rests on one foot, and as a general rule places the heel of the resting foot on top of the other, which for the moment has to bear the whole weight of the body. In this position the hip bone is pushed out of place and immediately a curve of the lower part of the spinal column to one side is caused, and if such a position is often assumed the curve of the spinal column will become habitual and finally permanent. But now the child is sent to school. The city schools are of course located in the interior of the city. The girls of 6 to 14 years of age sit on narrow benches in the oppressive heat of mid summer, and in the close air produced by a stove in winter. It is absolutely terrible that in many female schools children from 10 to 15 years are held from five to six hours daily at instruction at a time when nature executes, as far as bone growth is concerned, the most important changes."

Indeed, it is a proof of the indestructable power and capacity for resistance of the female organism that these attacks, to which a boy is never exposed in the same degree, are not at once and without exception followed by physical misdevelopment and the crippling of the intellect. If, however, these do not immediately appear, we can at least be sure that the latter evil results are the general rule, and that with this discipline of school training thus permitted without any effort to counteract by well directed physical exercises and gymnastic-games in the open air, the natural sprightliness of the girl is as certainly lost as the freshness of the muscles, the energy of the blood circulation and the normal function of the nervous system.

But we do not content ourselves with shutting up the female youth as many hours daily at instruction in the school as mind and body can stand. No, now follow also several hours of female handiwork, which always necessitates a crooked position of the spine, and in addition an abundance of school tasks are required, the performance of which would increase the mental potency of scholars during eight to ten years to a fabulous degree, if they were not simply an ever continued over-tasking of the mind and body of a girl already wearied by the irrational day's work. There can surely be no doubt, if a girl of six to fourteen years is compelled to sit daily five to six hours in the classroom of the school with more or less impure air, and besides to spend so many hours at home at school tasks, not taking into account the time occupied in embroidering, sewing, knitting, crocheting, music, etc., that this mode of training without the necessary bodily activity must be an entirely perverted one. Let us ask ourselves what is the use of these masses of laces, etc., a period of life trifled away with them when the female body should be rendered fit for its future destination and for all the requirements of social life, and the foundation laid for a lasting good health?

An able instructor of youth of the present time, with full justice, asks: "Is that education for our future housewives and mothers? In the period so important for the bodily development, is not the individual one so essentially injured that it causes every prudent father and thoughtful mother sleepless nights, because they know

not how the mischief is to be avoided? An education which entirely ignores bodily training, which neglects by means of suitable physical exercise to give to a healthy intellectual development a corresponding natural bodily foundation, is in the highest degree injurious and thoroughly perverted. If bodily exercise is absolutely necessary for our boys, it is more necessary for our girls. And whoever denies this, perhaps on account of femininity, propriety, gentility, custom and other similar objections, does not understand or appreciate the matter and cannot comprehend of what importance to the life of the family and of the State is a healthy and joyful wife."

Thus physical exercises are a pressing need for our girls: no such exercises as would be appropriate for boys, but such as develop the muscles of the lower extremities with a regard to develop and strengthen all those muscles and organs which are so essential in the future vocation of woman: *excellent gymnastic-games, calisthenics* (with wands, dumb-bells and clubs), *the walking, hopping, skipping and the figure exercises*. And with the proper development of strength, endurance and health we promote the development of beauty.

GYMNASTIC GAMES FOR THE EXERCISE AND RECREATION OF BODY AND MIND.

At an early period in Ancient Hellas, when in the social and political life powerful efforts were made to raise the standard of the arts and sciences, it became evident that it would be in the interest of society and the state to do every thing to accomplish a correct education of the young. This perception of what was needed, brought about a masterly system of training for a harmonious development of body and mind uniformly. This splendid method of education was made far more powerful and instructive by adding to the daily mental and physical labor, exercise in the form of play, so-called gymnastic-games.

The modern gymnastic-games as they are taught and practiced in European schools form an essential part of instruction in physical culture, and being closely allied with gymnastic-exercises for school-purposes, form with them an endless chain.

"Gymnastics coupled with gymnastic-games combine work and play, seriousness and mirth. In practicing good games little children learn to uphold equity, law, custom, habits, propriety and tact. "To learn to live with equals is the beginning of human greatness. Seclusion tends to egotism."

It is almost out of question, if to our present system of education such games (besides gymnastics) graded accordingly to the mental and physical condition of the pupils (children or adults) were added, the school of to-day would undoubtedly be able to show far better results than have been so far accomplished. The importance of gymnastic games for the preservation and restoration of health and the refreshing effect of these exercises upon the bodies of our youth is hardly appreciated or valued in the full sense of the

word. Great men have urged the addition of proper games to the programme of the children's instruction. Comenius speaks of the importance of gymnastic-games. Jean Paul makes a distinction between schools for physical education including games and schools for mental instruction; in truth—he says—if one of them must be given up, the former should be kept.” He calls play the poetry of mankind, and says in addition, “gymnastic-games promote the development of all powers (?) without requiring any one person to gain the mastery. Where, except among equals, can a child show and develop power, resistance, forgiveness, generosity, kindness, —in short, all the attributes of good fellowship? Schleiermacher claims that children learn from proper games to use and govern all their powers and that they acquire through such practices the greatest good, and are in the least danger of becoming immoderately fond of pleasures, or lazy and idle, or even immoral.

Every game is more or less an agreeable stimulus to the senses and this fact brings about contentment and gaiety. Every body needs pleasant recreation in order to preserve freshness and energy for daily labor; especially children with their lively temperament, and ever alert imagination. This is particularly the case during the period when the child goes to school. If its mind is always directed to the necessity of earnest exerting labor and not allowed any playful excitement, we cannot wonder if children should lose their youthful character and be found lacking in real energy and love for mental activity and exertions.

The gymnastic-game not only furnishes a healthy exercise and excitement, but also agreeable recreation. Such recreation the school should endeavor to give to every child, and by teaching them proper games they will preserve their freshness and activity.

It is a matter of fact that every organ is subject to fatigue if it is required to exercise without interruption and so it is with the brain. A fatigued brain needs more than any other organ of the body proper recreation, which, however, is not obtained by being idle and not having the slightest thing to do or without the least exertion of thinking. This would be tedious to every healthy child even after exerting labor at school and home. We notice

daily that children even when apparently tired will play with their companions vigorously and unceasingly. If the school develops in children in the proper direction the love for games which furnish an agreeable incitement and recreation and likewise do promote the physical development, it will be of great benefit to the object of education. By selecting and teaching pupils games proper for the different ages the instructor will naturally awaken in the child a renewed interest for mental and physical exertions, and the school will be able to do more and better work than without these means. This justifies the assertion *that mental elasticity of the learning child is almost impossible without the recreation obtained in proper games and proper physical exercise.* The great Englishman, Herbert Spencer, —though undoubtedly superficially informed on the scientific system of modern physical education as taught in the schools of Continental Europe—in speaking of games, says: “*Whoever forbids play, forbids the divinely appointed means to physical development.*” Experience teaches, that bodily exertion, derived from gymnastic-games is to children nothing but pure enjoyment. They learn, what the school for the mind never can teach them, the luxury of pleasurable fatigue.

In conclusion a few hints that indicate the influence of such games on the mental and physical faculties:

1. Secure attention and keen observation.
2. Develop the power of combinations.
3. Develop a habit of rapid thinking (presence of mind.)
4. Practical illustration of submission to the law of a social party with the freedom of the individual.
5. Help to promote the development of all senses in a natural manner.
6. Add remarkably to bodily health and elasticity.
7. Drive away timidity or shyness and help to develop courage and resolution.

